UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,586	10/04/2001	Peter J. Black	000157	1230

23696 7590 04/07/2006

QUALCOMM, INC
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER	
DUONG, DUC T	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/970,586	BLACK, PETER J.	
	Examiner	Art Unit	
	Duc T. Duong	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-9,11-19,21 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-13,19,21 and 22* is/are allowed.

6)☒ Claim(s) *1,2,5-8 and 14-18* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The indicated allowability of claims 1, 2, 5-8, and 14-18 are withdrawn in view of the newly discovered reference(s) to Chow et al (US Patent 6,748,220 B1). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 5-8, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al (US Publishing 2003/0022629 A1) in view of Dobson (US Patent 6,650,643), further in view of Chow et al (US Patent 6,748,220 B1).

Regarding to claims 1 and 2, Miyoshi discloses a method for controlling a data transmission between a transmission source and a receiving device in a wireless communication system, the method comprising receiving a current transmission at a current data rate for a current transmission interval (fig. 6; the receiving RF section 112 receive data at a transmission rate); detecting an average throughput for the data transmission and reflective of the current transmission (fig. 6 page 6 paragraph 0091; the throughput calculation section 401 determine the average throughput of the transmission); comparing the detected average throughput against a threshold throughput (fig. 6 page 6 paragraph 0092; the table rewriting section 402 compare the

determined average throughput with a predetermined throughput threshold); and if the detected average throughput exceeds the threshold throughput decremented the contents of a communication mode table 102 to indicate a channel downlink quality (fig. 6 page 6 paragraph 0097).

Miyoshi fails to teach the step of signaling the transmission source to stop the data transmission if the detected average throughput exceeds the threshold throughput and signaling the transmission source to resume the data transmission if the threshold throughput is not exceeded.

However, Dobson discloses a method for handling data transmission between a source 10 and a destination 12 comprising the step of signaling to the source 10 with a message indicating the call request is reject when the averaged load (throughput) exceeds the threshold load (throughput) and signaling to the source 10 with a message indicating the call request is accept when the averaged load (throughput) does not exceeds the threshold load (throughput), fig. 5 col. 6 lines 53-62.

Thus, it would have been obvious to a person of ordinary to include the step as taught by Dobson in Miyoshi's system to effectively manage transmission flow without running out of internal resources, such as memory.

Dobson in view of Miyoshi fails to teach for the threshold throughput is determined base on detecting packets dropped or received in error.

However, Chow discloses an apparatus for controlling resource allocation in a wireless networks, wherein a bit error rate is used to determine the data throughput (col. 9 lines 24-26).

Thus, it would have been obvious to a person of ordinary skill in the art to arrange for a determination of throughput using bit error rate as taught by Chow in Dobson and Miyoshi's system to provide users with quality of services QoS options for transmission of data.

Regarding to claim 5, Miyoshi discloses the performance of the receiving device is characterized prior to first field use of the receiving device page 6 paragraph 0095).

Regarding to claim 6, Miyoshi discloses dynamically characterizing the performance of the receiving device to determine the threshold throughput (page 6 paragraph 0094).

Regarding to claims 7, 8, and 18, Miyoshi discloses all the limitations with respect to claim 1, except for the step of averaging a value indicative of a throughput for the current transmission with values indicative of throughputs for one or more prior transmissions in one or more prior transmission intervals. However, Dobson discloses the step of calculating the average load (throughput) using prior loads stored in an integration array (buffer) over a pre-defined time interval (col. 6 lines 17-21). Thus, it would have been obvious to a person of ordinary skill in the art to arrange such step of averaging as taught by Dobson in Miyoshi's system to provides a more efficient calibration of the network resources.

4. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al (US Publishing 2003/0022629 A1) in view of Dobson (US Patent 6,650,643), further in view of Andersson et al (US Patent 6,519,461 B1).

Regarding to claim 14, Miyoshi in view of Dobson disclose all the limitations with respect to claim 1, except for resetting the average throughput to an initial value prior to reception of a first transmission for the data transmission.

However, Andersson discloses in a wireless network, an apparatus for switching between different types of communications channels based on throughput measurements, wherein the throughput initial value is establish prior to transmission of data (fig. 8 col. 8 lines 37-46).

Thus, it would have been obvious to a person of ordinary skill in the art to arrange for the step of establishing a throughput initial value prior to transmission of data as taught by Andersson in Dobson and Miyoshi's system to provide users with the optimum rate for transmission.

Regarding to claim 15, Miyoshi discloses the data transmission is transmitted in time division intervals (page 1 paragraph 0010).

Regarding to claims 16 and 17, Miyoshi discloses the wireless communication system is an HDR (page1 paragraph 0003). However, Miyoshi fails to teach the HDR system is CDMA or W-CDMA. However, to arrange an HDR system as CDMA or W-CDMA would have been obvious to a person of ordinary skill in the art since such system is well known in the art in wireless communication system.

Allowable Subject Matter

5. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 11-13, 19, 21, and 22 are allowed.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD
DD

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600